

## Nissan's Response to NHTSA's Request for Data in Support of the Company's Fleet-Split Exemption Petition and Supplemental Filing

This submission completes Nissan North America, Inc.'s (Nissan's) response to the National Highway Traffic Safety Administration's (NHTSA's or the Agency's) request for additional data in support of the Company's petition for exemption from the requirements of fleet-split calculations under the Corporate Average Fuel Economy (CAFE) program. Specifically, to the extent possible, Nissan provides NHTSA with data responsive to question four of the Agency's February 24, 2004 data request.<sup>1</sup> In addition, Nissan is providing NHTSA with its economic analysis of the potential impacts and consequences of various CAFE compliance options, as well as possible responses by the Company regarding those options. Finally, Nissan is also providing to the Agency additional information and responses to comments filed regarding the Company's petition.

As demonstrated by the data provided and the analyses of that data as outlined in further detail below, Nissan believes that the Company has limited options outside of the fleet-split petition. The two most likely alternative options are payment of CAFE penalties or decontenting a domestic vehicle or vehicles to shift those lines from the domestic fleet to the import fleet. As outlined below, from a pure cost and compliance perspective, decontenting of at least one vehicle line, [ ], provides the most attractive alternative to Nissan should the petition for exemption be denied. This option would result in a decrease in employment in the United States. Accordingly, based on this information, Nissan urges NHTSA to grant the Company's fleet-split petition.

### I. RESPONSE TO NHTSA'S DATA REQUEST

#### NHTSA's Request:

4. *Content shifting data.* For model years 2004 through and including 2010, provide specific information about changing the content of the Sentra, Altima and Maxima so that those vehicles would shift from being domestic to being imports. On page 14 of its petition, Nissan states that it "has considered a plan under which the domestic content of the Sentra would be decreased . . ." On the same page, Nissan also states that reducing the local content of the Altima and Maxima would have specific impacts on employment in both the Canton and Smyrna manufacturing plants. In order for the agency to consider these options as reasonable responses a rational firm might undertake, provide a list

<sup>1</sup> By e-mail correspondence dated March 12, 2004, NHTSA indicated that no response was required to question #5 of the Agency's request for data since other commenters did not respond to similar data requests when submitting their comments.

*of the parts that would be substituted with imported parts, the country of origin of the imported parts and the additional cost (as retail price equivalent) that would result from the substitution. It is important that this information reflect the average retail price equivalent for resourcing in 2003 dollars. See Table 1 in the Nissan Docket for clarification (<http://dmses.dot.gov/docimages/p77/268306.pdf>).*

### **Nissan's Response:**

Nissan has considered the options of decreasing the domestic content of either the [ ] or [ ]<sup>2</sup> as means of placing these vehicle lines in its import car fleet. At present, Nissan's analysis of these options has not extended to the creation of a full model-by-model, part-by-part analysis as NHTSA's question presupposes. Each of these models consists of thousands of parts, creating a virtually infinite menu of potential strategies for "decontenting" either of these vehicles to lower their domestic content below the 75 percent threshold. Exploring the most likely strategy for decontenting either of these vehicles in the detail requested by NHTSA would require an extensive, time-consuming, and expensive effort far beyond what is needed for a business decision on whether to pay a penalty or decontent a vehicle. Instead, Nissan has undertaken—consistent with business strategy and investigation—an analysis described below, that establishes that "decontenting" is the primary feasible compliance strategy, which is [ ] than the alternative of paying CAFE penalties for its fleet of imported vehicles.

Nissan's preliminary analysis of decontenting costs has been focused on estimating the likely costs of the strategy that can be estimated at a generic level without regard to the exact choice of parts to be resourced. This preliminary analysis is presented in attached Table 1.

The first step of the analysis is to determine the average dollar value of parts that will need to be resourced, per vehicle, to reduce the average domestic content of each vehicle line to just under 75 percent. Based on 2002 data on wholesale prices and value of [ ], Nissan's best current estimate is that moving the [ ] to the import fleet will require resourcing

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<sup>2</sup> In its petition for the exemption, Nissan indicated that one of the options available to the Company would be to reduce local content of [ ]. While decontenting of the [ ] was not further analyzed. [ ]

[ ] As noted herein, however, decontenting of [ ] is not likely to be Nissan's preferred compliance option.

approximately [ ] per vehicle of North American-sourced parts content; the comparable figure for the [ ] is [ ] per vehicle.

This figure is then multiplied by a vehicle-specific factor that captures the cost changes associated with a resourcing strategy that can reasonably be estimated at the present time, namely, the increased freight and duty costs associated with increasing the dollar value of imported parts. The vehicle-specific freight and duty factors are derived from the costs associated with Nissan's 2002 imports of Japanese materials at the vehicle line level, and suggest that the freight and duty penalty for resourcing [ ] parts content is likely to be approximately [ ] percent of parts value, while the comparable figure for [ ] content is [ ] percent of parts value. This produces an estimate of the per-vehicle resourcing costs; in both cases, this number is approximately [ ] per vehicle. Because the [ ], estimated total costs of resourcing are [ ]. In addition, because [ ]

For these reasons, the Company's analysis indicates that [ ] resourcing would be Nissan's preferred decontesting strategy.

Finally, the per-vehicle cost is multiplied by projected production volumes to yield estimates of total resourcing costs per year.<sup>3</sup> The cost of a [ ] decontesting strategy is [ ] than the estimated costs of paying CAFE penalties for Nissan's imported vehicle fleet. As attached Table 2 indicates, over the five year period 2006-2010, total estimated duty and freight costs associated with [ ] parts resourcing are [ ] the total CAFE penalties associated with an alternative strategy.

The analysis described above can also be extended to provide a likely upper bound of the total costs of such a strategy. This extended analysis also suggests that decontesting costs are almost certainly likely [ ] the cost of paying CAFE penalties.

The extended analysis considers the costs of a hypothetical "parts swap." In this scenario, for every dollar of [ ] parts content that Nissan chooses to switch from North American sourcing to Japanese sourcing, it balances the parts flow by exporting roughly comparable parts from its current North

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<sup>3</sup> These calculations rely on an estimate of total [ ] production that is derived from projected U.S. sales volumes but that also takes into account [ ]. In 2004, U.S. sales of [ ] are expected to account for roughly [ ] percent of total production in the [ ]. The calculation of projected production volumes assumes that this ratio will hold constant and thus assumes annual [ ] production rates that are equal to projected U.S. [ ] sales divided by [ ].

American suppliers to Japan. Such a strategy would leave essentially unchanged Nissan's overall combined Japanese and North American parts acquisition costs before taking into account changes in duty and freight, since Nissan would still be buying essentially the same volumes of parts from the same suppliers. The only costs associated with such a strategy would be the increase in duty and freight costs associated with the parts swap. This cost increase consists of two pieces: first, the duty and freight costs associated with Nissan's increased parts imports into North America; and, second, the duty and freight costs incurred in exporting a comparable dollar value of parts to Nissan's operations in Japan. The analysis presented in Table 2 shows that the first piece is, on average, [ ] the cost of paying CAFE penalties. Moreover, the second piece, the cost of shipping parts from North America to Japan, is likely to be [ ] the first. This is because there are essentially no duties associated with auto parts imports into Japan<sup>4</sup> and freight costs for shipments from North America to Japan should be roughly half those associated with shipments from Japan to North America.<sup>5</sup> As a result the total cost of a "parts swap" strategy should be [ ] those associated with paying CAFE penalties, as the calculations shown in Table 3 illustrate.

This analysis is based on a hypothetical resourcing strategy that establishes a reasonable upper bound on Nissan's decontenting costs that is [ ] the cost of CAFE penalties. It is critical to note that in reality, Nissan is under no obligation to export parts from North America to Japan and incur outbound freight costs for parts that can continue to be more economically sourced from Japan or other Asian countries. Accordingly, by forgoing such unnecessary and unprofitable North American parts exports, as it would do in reality, Nissan clearly can, in practice, actually reduce the costs of the decontenting strategy well below the upper bound analysis. Moreover, by pursuing a realistic strategy that less than counterbalances increased parts imports into North America with increased exports to Japan, Nissan would be pursuing a strategy that virtually guarantees the net loss of North American (and U.S.) jobs in parts manufacturing.

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<sup>4</sup> There is a five percent excise tax on parts purchase; however, as this tax applies to both imported and Japanese parts equally, the parts swap strategy should not increase Nissan's Japanese excise tax obligations significantly unless North American parts are significantly more expensive than Japanese parts.

<sup>5</sup> For example, Nissan estimates that the costs of [ ]

[ ], while the cost of the reverse move [ ]. The lower costs for the reverse move are a consequence of the merchandise trade deficit the U.S. is now running with major Asian economies, which results in the existence of substantial volumes of unused "backhaul" capacity on ships returning to Asian ports from the United States.

II. IMPORT SUBSTITUTION ANALYSIS AND IMPACTS TO THE AUTOMOBILE MANUFACTURING INDUSTRY

In the Company's initial petition, Nissan indicated that, in the event that it did not obtain an exemption from the "two-fleet" rule and it elected to pay CAFE penalties for its imported fleet rather than shifting domestic production of the Sentra, Altima, or Maxima to the imported fleet, the resulting changes in domestic employment would be negligible. In that petition, Nissan submitted an initial analysis that suggested that were the company to incur CAFE penalties of approximately [ ] in 2006 and [ ] in 2007, and pass these costs through to consumers of its imported vehicles, Nissan would lose sales of [ ] units in 2006 and [ ] units in 2007. Nissan presented an analysis demonstrating that even if every one of these sales lost to Nissan were replaced in the marketplace by a sale of a domestically produced vehicle (i.e., a Ford, DaimlerChrysler, or General Motors vehicle), the effects of the change in sales patterns on domestic employment in vehicle assembly would be negligible. Nissan further argued that since Nissan purchasers typically prefer imported vehicles (i.e., Asian or European vehicles), it was unlikely that domestic manufacturers (i.e., "the Big 3") would capture all of Nissan's sales, rendering Nissan's estimates of job effects conservative. In response to Nissan's petition, NHTSA has solicited comments on vehicle substitution patterns for potential buyers of Nissan vehicles to ascertain whether there continues to be a phenomenon of an "import buyer," as NHTSA found in granting Volkswagen's petition for exemption from the two-fleet rule in 1981.

Nissan believes that the answer to NHTSA's question of whether an "import buyer" bias exists is yes. Using data from Nissan-purchased surveys of new-vehicle purchasers, together with the Company's most recent data on projected sales volumes and CAFE forecasts, Nissan has been able to refine its analysis of Nissan sales losses resulting from a decision to pay CAFE penalties and the associated domestic sales and employment gains that might arise from Nissan's decision to pursue such a strategy. The results of this analysis show that vehicles assembled outside of North America would constitute a substantial majority of sales gains that would accrue to other vehicle lines if Nissan were to raise the price of its imported vehicles. In particular, Nissan now estimates that a strategy of paying CAFE penalties and passing the costs along to imported vehicle purchasers would result in initial sales losses to Nissan of [ ] imported vehicles in 2006, [ ] imported vehicles in 2007, [ ] imported vehicles in 2008, and [ ] imported vehicles in 2009, and [ ] imported vehicles in 2010. Nissan estimates the gains in North American vehicle production associated with these sales losses, however, to be only [ ] units in 2006, [ ] units in 2007, [ ] units in 2008, and [ ] units in 2009, and [ ] units in 2010. As a result of these very small changes in North American production, any positive effects on North American (and U.S.) automotive employment from a Nissan decision to pay CAFE penalties for its imported car fleet would be negligible. Using comparable data sources, Nissan has also performed an

analysis of the likely employment losses that would ensue were it instead to “decontent” one of its North American-produced model lines. This analysis shows a potential loss of American automotive-related manufacturing employment that is considerably larger than the negligible gains that might be expected to follow a penalty strategy. Our analysis and the basis for the foregoing conclusions are provided below in greater detail.

#### **A. Updated Calculation of CAFE Penalties in Aggregate and at the Model Level**

The first step in Nissan’s analysis is to calculate potential CAFE penalties in the aggregate and at the model levels based on the most recent available forecasts of vehicle sales volumes and fuel economy ratings. As detailed in Table 4, current estimates of aggregate CAFE penalties range from a high of approximately [ ] in MY 2006 to a low of approximately [ ] in 2008. As also reflected in Table 4, penalties have been allocated to individual model lines using a formula that captures the CAFE penalty associated with selling each additional vehicle of a given model line in a given model year. This marginal CAFE penalty figure takes into account the change in Nissan’s overall penalty and captures the effects of selling an additional vehicle on both Nissan’s overall sales volumes subject to CAFE penalties and the contribution of each additional sale to raising or lowering Nissan’s overall imported car fleet CAFE level.<sup>6</sup> Appendix A provides a derivation of the formula used in calculating the marginal penalty.<sup>7</sup>

#### **B. Calculation of Nissan Sales Losses and Competitive Model Sales Gains Resulting from Penalties**

Table 5 shows the calculation of likely sales losses, by model line and model year, of imported Nissan models and overall unit sales gains of competitive models resulting from these sales losses under the assumption that Nissan reflects CAFE penalties in vehicle sales prices according to the allocation scheme described above.

The first step in estimating sales losses and diversions is to calculate CAFE-related price increases as a percentage of Nissan’s expected base model 2006 MSRPs. Model-specific unit sales losses are then calculated using price elasticities of demand of [ ]

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<sup>6</sup> For calculation purposes, we ignore the complication that CAFE penalties are based on a fleet average rounded to the nearest tenth of an MPG.

<sup>7</sup> The complexity of the formula presented in Appendix A results from the required use of harmonic averaging in CAFE calculations. The marginal penalty for model type  $i$  can be approximated using the simpler formula that would be appropriate if CAFE were calculated by arithmetic averaging:  $\$55 \times (27.5 - \text{MPG}_i)$ .

].<sup>8</sup> These values are consistent with those reported in the published literature for high-price and mid-level luxury vehicles.<sup>9</sup> Unit sales losses are then translated to induced sales gain figures for all other competitive vehicle lines under an assumption that 95 percent of buyers deterred from purchasing their most preferred vehicle by a price increase will purchase a competing model instead, while 5 percent will instead defer purchase of any new vehicle. This ratio is consistent with results reported in a recent study of demand elasticity at the vehicle line level.<sup>10</sup>

### C. Allocation of Induced Sales Gains to Competitive Model Lines

Nissan, like many motor vehicle manufacturers, regularly obtains data that can be used to infer likely consumer substitution patterns that can be used to allocate sales losses from Nissan vehicles, whose price has increased, to other makes and model lines. These data are the "second choice" responses collected as part of surveys regularly conducted of new vehicle purchasers. Along with collecting information on new vehicle purchaser demographics, ratings of vehicle features, reasons for buying, vehicles disposed of and other vehicles owned, etc., such surveys typically ask consumers about other vehicles they considered for purchase. For example, the survey currently purchased by Nissan asks consumers if they considered any other makes of cars or trucks before they bought or leased their new vehicles. Buyers who answer "Yes" are then asked "What make and model did you most seriously consider?" These "second choices" can be used to infer likely substitution patterns from a particular model to other models when consumers choose to abandon the first model because it has become less desirable due to factors such as price increase.

Nissan has used second choice data reflecting purchasers of 2003 and some early 2004 model year vehicles to infer such patterns for the imported Nissan and Infiniti vehicle lines whose prices will increase if Nissan chooses to pay CAFE penalties. In the analysis, Nissan assumes that if a price increase for Nissan vehicle line "A" can be expected to induce 100 total sales of other vehicles in the U.S. market, these 100 additional sales will be distributed to other vehicle lines "B",

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<sup>8</sup> The price elasticity of demand is defined as the percentage change in quantity demanded associated with a one percent change in price.

<sup>9</sup> See, for example, the elasticities reported in Steven Berry, James Levinsohn and Ariel Pakes, "Automobile Prices in Market Equilibrium," *Econometrica*, Vol.63, No. 4, 841-890 at 879 (July 1995).

<sup>10</sup> Steven Berry, James Levinsohn and Ariel Pakes, "Differentiated Products Demand Systems from a Combination of Micro and Macro Data: The New Car Market," *Journal of Political Economy*, forthcoming. Working paper version dated February 28, 2003, at Table 8a, available at <http://www.econ.yale.edu/%7Esteveb/microblp.pdf>.

“C”, “D”, etc. in proportion to the fractions of recently surveyed model “A” buyers (who considered another vehicle for purchase) who named “B”, “C”, “D”, etc. as the model most seriously considered.<sup>11</sup>

#### D. Results of the Sales Diversion Analysis

By classifying all models in the data set according to their place of assembly and then calculating sales diversions summed across all domestically produced vehicles, one can use the results of the analysis described above to answer questions about the likely sales gains of domestically produced cars that would result from Nissan’s decision to pay CAFE penalties. Table 6, which shows the results of such an analysis, reveals that a price increase to Nissan’s imported vehicle lines is likely to divert far more buyers to imported vehicle models than to those produced domestically.<sup>12</sup> Furthermore, even among “domestic” vehicles, most of the sales increases are accounted for by “transplant” vehicles assembled in North America by European- and Asian-based manufacturers, confirming that, at least for Nissan’s imported vehicle lines, the phenomenon of the “import buyer” is alive and well.

Another key result of the analysis is that any additional sales of domestically produced vehicles induced by a Nissan decision to pay CAFE penalties for its imported fleet are likely to be distributed across a wide range of models, with even the most commonly chosen model accounting for less than 10 percent of domestic sales gains and none showing average annual sales gains of more than approximately [ ] vehicles (Table 7). As discussed below, this conclusion implies that any employment gains associated with these induced sales are likely to be small or non-existent. Table 7 shows the annual and average sales gains for the

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<sup>11</sup> The 2003 Model year survey includes data for purchasers of the Nissan 350Z convertible, as well as for the Infiniti G35 Sedan, G35 Coupe, M45, and Q45 models. No data were available for purchasers of the Nissan 350Z Roadster; consequently, the analysis assumes that buyers of the 350Z Roadster would show the same pattern of second choices as buyers of the 350Z convertible.

<sup>12</sup> Note that the classification scheme adopted for this analysis presented in Table 6 classifies as “domestic” all vehicles assembled in the U.S., Canada and Mexico, so the results overstate the sales losses attributable solely to U.S. assembly plants. The classification scheme used in the analysis is as follows. All “Big 3” model lines are assumed to be assembled in North America. In addition, all model lines that were assembled in North America by Asian- or European-based manufacturers in either the 2003 model year (e.g., Nissan Altima, Nissan Sentra, Toyota Camry) or the 2004 model year (e.g., Nissan Maxima, Lexus RX SUV, BMW Z4) are classified as domestic, whether or not vehicles in that model line were also produced overseas. In addition, where survey respondents identified only a make, but not a model line, (e.g., “Nissan car unspecified/other”) as a second choice, the following makes (in addition to unspecified “Big 3” second choices) were assumed to be domestic by default: Acura, Honda, Nissan, Toyota, Subaru, and Mitsubishi passenger cars and Acura, Honda, Isuzu, Mazda, Nissan, Toyota, and Mercedes trucks.



twenty North American assembled model lines showing the greatest total sales gains in the analysis.

#### E. U.S. Employment Implications of the Sales Diversion Analysis

The employment implications of the sales gains for domestically produced vehicles described in the previous section can be evaluated using data on employment, value of shipments, and value of materials for the motor vehicle manufacturing, motor vehicle body and trailer manufacturing, and motor vehicle parts industries collected from the U.S. Census Bureau's Annual Survey of Manufactures (ASM) and reported in its publication, *Statistics for Industry Groups and Industries*.<sup>13</sup>

Starting with the sales gains and assumed average wholesale price of [ ]<sup>14</sup> for competing domestically manufactured vehicles, we translated annual sales gains into an estimate of the change in factory receipts at U.S. assembly plants. The employment gains that might result from this increase in factory receipts are then calculated for two categories—the assembly sector and the component sector.

To calculate the employment gains in assembly, we first calculated the ratio of production workers/value of shipments from the 2001 ASM data reported for the 5-digit industry “Automobile & light duty motor vehicle manufacturing” (NAICS code 33611), and then applied annual adjustment factors to update this ratio for years 2006 through 2010 to reflect expected trend productivity growth. Multiplying this ratio, as calculated for each year, by the change in factory receipts for that year, yields an estimate of the number of job equivalents created each year by sales diversions from Nissan’s imported passenger car fleet to North American-assembled vehicles.<sup>15</sup>

We then calculated the employment gains at component factories associated with these induced domestic sales. Starting with 2001 ASM data on total cost of materials and total value of shipments on value of inputs/value of outputs in NAICS industry 36111, we first derived an estimate of the dollar value of

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<sup>13</sup> Table 2, “Statistics for Industry Groups and Industries: 2001 and Earlier Years,” U.S. Department of Commerce, *Statistics for Industry Groups and Industries: 2001* at 42-43 (Jan. 2003).

<sup>14</sup> We have assumed that the wholesale price of the competing vehicles will be approximately equal to the average wholesale price of the imported Nissan vehicles they replace in the marketplace. Based on 2003/2004 MY wholesale price data previously submitted to NHTSA, we calculate this average wholesale price to be approximately [ ] over MY 2006- MY 2010.

<sup>15</sup> Note that this estimate overstates U.S. employment changes because it implicitly includes some jobs gains in Canadian and Mexican assembly plants.

parts inputs associated with each dollar of automobile and light duty motor vehicle manufacturing output. Using this ratio, and our previously derived estimates of the change in factory receipts at U.S. assembly plants, we calculated annual estimates of the total change in parts purchases that would result from sales diversions from Nissan's imported passenger car fleet to North American-assembled vehicles. We then multiplied by a factor of 0.75 to reflect an assumption that 75 percent of the parts value of these particular North American assembled vehicles would be derived from U.S. parts.<sup>16</sup> Next, we multiplied these annual estimates of changes in U.S. parts purchases by a weighted average of value of shipments/production worker ratio for two major input sectors: "Motor vehicle body and trailer manufacturing" (NAICS code 3612) and "Motor vehicle parts manufacturing" (NAICS code 3613), adjusted for expected trend productivity gains, to calculate annual job equivalents associated with parts production.

Table 8 shows the combined U.S. employment gains and gains in vehicle assembly and vehicle parts as a result of the sales gains for U.S. manufactured vehicles. These employment gain numbers range from [ ] to [ ] production workers per year. These numbers are extremely modest in the context of industries that together employed nearly 850,000 production workers in 2001.<sup>17</sup>

In reality, actual changes in employment are likely to be far more modest than the numbers reported in Table 8. This is because the total sales increases that result from changed Nissan pricing not only are modest, but also are spread out among many different model lines. As shown in Table 7, demand increases for even the most commonly chosen model lines are likely to be very small—an annual average of about [ ] units or less. A manufacturer's likely response to sales gains of such a small magnitude will not be to increase employment but instead to increase overtime for the few hours per year needed to produce the small number of additional units. Very similar responses will also likely take place in the parts sector, since parts orders for particular models will increase by such a small amount from their baseline levels that increased overtime is also likely to be the preferred option. As a result, it is likely that few, if any, additional U.S. production workers will be employed in the U.S. motor vehicle

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<sup>16</sup> The most recent NHTSA assessment of American Automobile Labeling Act (AALA) data concludes that the value-weighted average U.S./Canadian parts content in new passenger vehicles registered in the United States in model year 1998 was 84 percent for "Big 3" vehicles and 59 percent for "Transplant" vehicles. Juanita S. Kavalauskas and Charles J. Kahane, *Evaluation of the American Automobile Labeling Act*, NHTSA Report Number DOT HS 809 208 (Jan. 2001), at <http://www.nhtsa.dot.gov/cars/rules/regrev/evaluate/809208.html>. Given that transplant vehicles account for a majority of the domestic unit sales diversions from Nissan's imported vehicles and the AALA's inclusion of Canadian parts content as "domestic," we believe the 75 percent U.S. parts value assumption to be conservative.

<sup>17</sup> This figure represents the total number of production workers recorded for NAICS Industries 33611, 3362, and 3363 in the 2001 ASM, rounded to the nearest 10,000.

assembly and motor vehicle parts industries in the event that Nissan chooses to pay CAFE penalties for its imported passenger car fleet.

#### F. Decontenting Analysis

The other option available to Nissan in the event of the petition not being granted is to decontent one or more of its vehicle lines produced in North America to reclassify them as imported, so as to enable both domestic and imported passenger car fleets to meet the 27.5 mpg CAFE standard from 2006 onward. By contrast to the penalty strategy analyzed above, which is likely to result in few if any job gains in the U.S. motor vehicle assembly and parts sectors, a decontenting scenario is likely to lead to actual job losses in the U.S. motor vehicle parts industries. Based on Nissan data establishing the dollar value of parts that would have to be resourced from the U.S., Mexico, and Canada to countries outside the NAFTA area, the extent of these employment losses can be estimated using the same ASM data relating the number of production workers to the total value of shipments in the motor vehicle component manufacturing sectors value that has been described in the previous section.

Initial analysis suggests that the most likely target for such a decontenting exercise is the [ ] model line because [ ]

[ ] We have used 2002 dealer wholesale cost and 2002 and projected 2005 domestic content data for the [ ] model to estimate the dollar value of [ ] parts that will have to be resourced so that the [ ] falls just short of achieving a 75 percent North American content level. This initial analysis indicates that achieving this content level would require resourcing an average of [ ] of parts content per vehicle outside North America. In our analysis, we have kept this dollar value of resourced parts constant for years 2006 through 2010.

As shown in Table 9, at 2006-2010 projected [ ] production volumes, this level of parts resourcing translates to annual losses of North American content from *status quo* levels that range between approximately [ ] and [ ]. Using the same weighted average of value of production workers/shipments ratio for the two motor vehicle components sectors (Motor vehicle body and trailer manufacturing and Motor vehicle parts manufacturing, NAICS codes 3612 and 3613) discussed in the previous section, these parts sales losses can be translated into U.S. job losses. If all of the resourced content would have been produced in the U.S., these figures translate into a loss of between [ ] and [ ] U.S. production jobs (Table 9) in the motor vehicle components sectors. If, instead, content were reallocated among the U.S., Canada, and Mexico, in proportion to their current shares of total North American parts content in the [ ] (approximately [ ] percent for the U.S.), annual U.S. production worker losses in the motor vehicle components sectors would still

amount to between [ ] and [ ] (Table 9). In reality, it is likely that more than this share of content would be from U.S. sources, since higher U.S. labor costs and [

] mean that content originating in the U.S. is more readily amenable to substitution from overseas sources than is content originating in Mexico.

Compared to the analysis of the employment effects arising if Nissan chooses to pay CAFE penalties, these calculated job loss changes are far more likely to translate into actual reductions in employment rather than into changes in overtime hours. This is because eliminating U.S. sourcing for parts used across an entire vehicle line will lead to demand reductions for particular parts of over [ ] units per year. With volumes of this magnitude, it is quite likely that many component plants would devote a substantial fraction of their production capacity to meeting the component needs of this single model line. At such plants, the least cost response to losing production volumes associated with the [ ] model line may be to eliminate entire shifts, close production lines, or take other actions likely to lead to employment losses.

#### G. Results

Analysis of the U.S. employment consequences of the two strategies potentially available to Nissan—paying CAFE penalties for its imported passenger car fleet or decontenting one of its North American-assembled models—shows that the risks to U.S. auto-sector employment associated with the two strategies are asymmetric. As shown in Table 10, analyses relying on production worker/value of shipments data suggest that the latter strategy is associated with far more job losses than is the former with potential job gains. Moreover, because the CAFE penalty strategy is associated with small and widely dispersed gains in U.S. motor vehicle output while the economic effects of a decontenting strategy are likely to be concentrated on a relatively small number of component facilities, the latter strategy is far likelier to lead to actual changes in employment levels rather than changes in hours worked per employee. As outlined in the response to NHTSA's data requests, Nissan's analysis demonstrates that decontenting is a more cost-effective strategy for meeting CAFE and is therefore, the most viable option that could be chosen by the Company if the petition were denied. Based on the foregoing analysis, denial of the petition could therefore result in the employment level reductions outlined above.

### III. RESPONSE TO COMMENTS

In addition to the above responses to NHTSA's follow-up questions, Nissan submits the following responses to issues raised by comments on the petition filed in the Agency's docket. Specifically, comments filed by the United

Auto Workers (UAW), and by DaimlerChrysler Corporation (DCAG), Ford Motor Company (Ford) and General Motors (GM), collectively, include a number of arguments against granting Nissan the fleet-split exemption.<sup>18</sup> As discussed in detail below, the arguments raised by the UAW and DCAG, Ford and GM lack support and only serve to obscure the statutory standard for granting the exemption.

Under the CAFE statute, the only relevant standard of review for the granting of a petition for exemption from the fleet-split requirements is whether the granting of such petition would result in reduced employment in the U.S. automotive manufacturing industry. See 49 U.S.C. § 32904(b)(6)(B). If NHTSA cannot show that granting the petition will reduce employment in the U.S., the petition must be granted. All other issues are moot.

#### **A. The Exemption Will Not Result in a Competitive Advantage**

In Nissan's case, the Company seeks the exemption in order to maintain current levels of domestic production and to be able to continue the expansion of manufacturing, and accordingly, jobs in the United States. Without providing any supportive data, DCAG, Ford, GM and UAW suggest that granting the petition will give Nissan an unfair competitive advantage over other automobile manufacturers. This argument lacks substance and ignores the statutory limitations placed on manufacturers who obtain the exemption.

Under the fleet-split rule, manufacturers must calculate the fuel economy of their foreign and domestic fleets separately. Under the NAFTA provisions, vehicles produced in Mexico will shift from the foreign fleet to the domestic fleet. No other manufacturer in the United States except Nissan appears to be adversely affected by the shift caused by the free-trade agreement. Rather than seeking a "competitive advantage," through its petition filing, Nissan seeks only to maintain the status quo through an existing statutory provision. Furthermore, the fleet-split exemption does not come without cost. The price for the exemption is the loss of CAFE credit earning power and the effective loss of previously earned CAFE credits.<sup>19</sup> See 49 U.S.C. § 32904(b)(8) (providing that non-domestic manufacturers that obtain the exemption cannot utilize the credit provisions of CAFE). Indeed, the legislative history of the fleet-split exemption noted that the limitations on manufacturers who obtained the exemption, such as the elimination of carryback and carryforward benefits, should meet the concerns of domestic manufacturers that the exemption would create a competitive advantage.

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<sup>18</sup> While the UAW opposes Nissan's petition, we note that DCAG, Ford and GM do not. The comments of DCAG, Ford and GM only ask that NHTSA "deliberate carefully before reaching a decision" on the issue.

<sup>19</sup> The exemption lasts for five years; credits are only good for three years. Thus obtaining the exemption comes at the cost of those previously banked credits.

See H. Rep. 96-1026 at 16 (1980). Accordingly, Nissan will not obtain a competitive advantage over other manufacturers.

The fleet-split exemption process, in fact, is precisely the approach that the Alliance of Automobile Manufacturers endorsed when that organization opposed a bill that would have provided statutory relief for the Company. In an opposition paper presented to members of Congress, the Alliance listed as option number 1, Nissan's ability to seek the exemption petition now at issue.<sup>20</sup> The Alliance expressly noted the exemption petition criteria noted above and referenced the price paid for the petition as the loss of credit using and earning power. The support of the members of the Alliance, including DCAG, Ford and GM (and excluding Nissan), for the fleet-split exemption as Nissan's preferred option, lends credence to the Company's position that Nissan will not gain any competitive advantage from the granting of the petition.

## **B. Denying the Exemption Will Not Increase Domestic Sales**

The UAW attempts to argue that denying Nissan the fleet-split exemption will result in increased sales for domestic manufacturers, or for non-domestic manufacturers with higher levels of domestic content. Notwithstanding the fact that this is not the standard under which Nissan's petition should be reviewed, UAW's arguments lack support. As discussed in greater detail in Section II above, Nissan's specific data demonstrate that the majority of customers of imported Nissan passenger cars would choose other imported models if these Nissan vehicles were not available.

By contrast, the UAW provides no concrete data regarding the lack of the "import-buyer" phenomenon. In fact, the most recent issue of *Consumer Reports*—cited by the UAW—comes to the opposite conclusion cited by the UAW. The *Consumer Reports* article clearly states that domestic-based manufacturer vehicles, while improving over European manufactured vehicles, are not yet on par with Japanese-based manufacturer vehicles. The article draws the following conclusions:

- ◆ "Honda, Nissan, Mazda, and Toyota were among the makes well represented in the top ranks of reliability."

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<sup>20</sup> The relevant portion of the Alliance document reads:

Section 32904(b)(6) sets out an exception process that Nissan could use to combine its import and domestic fleets into one fleet for CAFE compliance purposes. Based upon a petition from Nissan, DOT would be required to provide an exemption unless the exemption would result in reduced employment in the U.S. The penalty for moving to one fleet is that a manufacturer cannot earn or use CAFE credits during the exemption.

- ◆ “Overall, the most reliable vehicles continue to be those from Asian automakers.”
- ◆ “As the problem rate for domestic vehicles improved slightly, the quality gap between U.S. and Asian makes narrowed slightly. Still, the average 2003 U.S. model still has 50 percent more problems than the average Japanese model.”

Consumer Reports: *How Cars Are Holding Up* (April 2004) (emphases added), available at [www.consumerreports.org](http://www.consumerreports.org). In addition, the UAW’s argument that Detroit-based producers are “in the midst of revamping their care (sic) lineups, which they hope will increase their market share” is speculative in nature and not based on any statistics, data or studies. Accordingly, the UAW’s assertions are likewise speculative.

Similarly, the UAW’s argument that sales lost from Nissan vehicles, even if captured by other foreign manufacturers, will nonetheless be captured by sales of vehicles with greater levels of domestic components, lacks merit. If NHTSA denies the exemption petition, a significant portion of sales lost by Nissan due to increased costs relating to the shift of the Sentra from the foreign to domestic fleet may shift to other foreign manufacturers. The UAW fails, however, to provide data demonstrating that other foreign manufacturers produce vehicles with greater domestic content. In fact, with greater numbers of Altima and Maxima vehicles being produced at Nissan’s recently expanded Smyrna, Tennessee facility and the Nissan Quest, Titan, Armada and Frontier being produced at the new Canton, Mississippi facility, the Company is producing more and more vehicles for the U.S. market built in the United States. Therefore, the UAW’s argument lacks support.

### **C. UAW, DCAG, Ford and GM Cannot Show that Nissan is Ineligible for the Exemption**

Both the UAW and DCAG, Ford and GM suggest that because Nissan knew (or could have known) about the impacts of the NAFTA provisions of the CAFE program over ten years ago, the Company could have prepared for the eventuality of the Sentra entering the domestic fleet. It is irrelevant how much time has passed since the NAFTA provisions were enacted or what could have been done in the 1990s. The CAFE statute expressly provides for an exemption process that any manufacturer may utilize (provided the manufacturer meets the pre-filing criteria of early manufacturing presence in the United States) in order to seek an exemption from the fleet-split requirements. Although Congress had ample opportunity to rescind the fleet-split exemption and, in fact, could have done so as part of the NAFTA amendments to CAFE, it chose not to and the exemption remains a tool available to manufacturers under the current law. The only relevant standard for granting of the petition is whether granting of the petition would result in loss of U.S. jobs.

As one of their lead arguments, DCAG, Ford and GM suggest that Nissan does not meet the Congressional intent of the 1980 amendments enacting the exemption. Given the eligibility requirements of the exemption, DCAG, Ford and GM's argument—that the provisions were intended only to encourage the beginning of production in the U.S.—would eliminate virtually any use of the exemption beyond 1986. Accordingly, it is unlikely that Congress intended that the 1980 amendments enacting the provisions of the fleet-split exemption be limited to encouraging the start of production in the United States. In fact, the opposite appears to be true—that the legislative purpose of the exemption process was to encourage additional production in the United States.

The foregoing premise is supported by language of the exemption standard itself. The CAFE statute establishes a clear test for eligibility for the exemption. A manufacturer may file a petition for the exemption only if the manufacturer began domestic production (1) after December 22, 1975 but before May 1, 1980; or (2) after April 30, 1980, but only if the manufacturer engaged in at least one model year's worth of production ending before January 1, 1986. 49 U.S.C. § 32904(b)(6)(A). As evidenced by the exemption provision's requirement for early manufacturing presence in the United States in order to apply for an exemption, the 1980 amendments were enacted to allow manufacturers who had already established an early manufacturing presence in the United States, or who chose to establish a presence prior to 1986, to continue or increase that presence by avoiding the downsides caused by the fleet-split requirements. Despite DCAG, Ford and GM's implications to the contrary, the true purpose of the exemption "is to encourage increased employment in the United States." Conf. Rep., No. 96-1402 at 13 (1980).

The UAW further suggests that because Nissan may have other options available for meeting the dilemma caused by the NAFTA provisions, the Company is not entitled to the fleet-split exemption. This argument again ignores the reality that the CAFE statute provides for the exemption as a tool available to manufacturers and does not require manufacturers to demonstrate that they have no other options available. Rather, the exemption may only be denied if, and only if, it is clear that it will result in a reduction of U.S. jobs.

The UAW also argues that Nissan could transplant production of certain passenger vehicles, such as the 350Z, from Japan into the United States and therefore obviate the need for the fleet-split exemption. In reality, the option of shifting production of these models from Japan to the United States is both cost prohibitive and impractical for Nissan.

As part of the Nissan 180 plan, the Company has been increasing localization by shifting production of vehicles to the markets in which the majority of these vehicles are sold. Based on this approach, Nissan has closed five manufacturing plants in Japan and shifted production of Altimas and Maximas to



the United States. As a result of these recent changes, the relatively small-volume, rear-wheel drive passenger car model lines that constitute Nissan's imported passenger car fleet would be poor candidates for shifting to U.S. production, even if Nissan had extra production capacity in the United States. Because these vehicles share parts and underlying vehicle platforms with one another and with similar models being produced for the Japanese market, achieving productive efficiency favors producing both U.S. and Japanese variants of all these models at a single facility. To achieve these efficiencies, Nissan has just moved production of the Nissan 350Z model (and the comparable model for the Japanese market, the Fairlady Z) to the same Tochigi, Japan plant that produces the Infiniti G35, M45, and Q45 models and corresponding models built off the same car platforms for the Japanese market. See Nissan Press Release, *Nissan Shifts Fairlady Z Production to its Tochigi Plant* (Nov. 21, 2003), available at [www.nissan-global.com/EN/NEWS/](http://www.nissan-global.com/EN/NEWS/). The Tochigi plant is now Nissan's sole source of rear-wheel drive high-performance and luxury cars for both the Japanese and U.S. markets. Having reconfigured its manufacturing operations for these vehicles to achieve maximum productive efficiency, it would make little sense for Nissan to now establish duplicative production facilities in the United States. For these reasons, the UAW's suggestion to shift production is not a viable solution for Nissan.

Nissan is seeking the exemption from the fleet-split provisions precisely so that the Company's plans for continued expansion (i.e., job growth) in the United States can continue. As cited in hearing testimony before the House of Representatives Committee on Interstate and Foreign Commerce Subcommittee on Energy and Power, the UAW summarized the purpose of the exemption to encourage both new and existing manufacturers to increase domestic content: "In order to encourage these foreign concerns to not only locate in the United States but also to achieve a high level of U.S. content in their finished products, it is necessary for them to have a single CAFE . . . ." Comm. Rep. No. 96-162, at 156 (1980). Accordingly, Nissan meets the statutory intent of the exemption.

Regardless of statutory intent, however, the plain language of the fleet-split exemption provision is clear—any manufacturer meeting the criteria for application may petition for an exemption where the only determinative factor is whether granting of the petition will result in decreased automotive manufacturing jobs in the United States. If a decrease in jobs cannot be shown, then the petition must be granted. Nissan believes that with its petition for the exemption and the information provided above in response to NHTSA's request, the Company has demonstrated that no decrease of U.S. jobs will result from the granting of the exemption. In fact, Nissan believes it has demonstrated the opposite—that without the exemption, the Company may be forced to reduce domestic content levels of certain vehicles, which would likely lead to reductions in U.S. employment.

# APPENDIX A: DERIVATION OF FORMULA USED IN CALCULATING THE MARGINAL CAFE PENALTY

$$\text{Total CAFE Penalty, } P = 55 * \left( 27.5 - \frac{\sum_{i=1}^N S_i}{\sum_{i=1}^N \frac{S_i}{FE_i}} \right) * \sum_{i=1}^N S_i$$

where,

$i$  denotes model line,

$N$  = Total number of model lines included in the fleet,

$S_i$  = Vehicle sales for model line  $i$ ,

$FE_i$  = Combined (combination of city and highway) fuel economy for model line  $i$ ,

CAFE penalty per mpg per vehicle = \$ 55,

CAFE standard = 27.5 mpg, and

Corporate Average Fuel Economy for the whole fleet = Sales weighted harmonic

$$\text{average of the combined fuel economy of individual model lines} = CAFE = \frac{\sum_{i=1}^N S_i}{\sum_{i=1}^N \frac{S_i}{FE_i}}$$

Now,

Contribution of each vehicle in model line  $i$  towards the total CAFE penalty =

Marginal penalty associated with the sales of an additional vehicle for model line  $i$  =

$$\delta P / \delta S_i$$

$$\frac{\partial P}{\partial S_i} = 55 * \left( 27.5 - \frac{\sum_{i=1}^N S_i}{\sum_{i=1}^N FE_i} \right) - 55 * \sum_{i=1}^N S_i * \left[ \frac{\left( \sum_{i=1}^N \frac{S_i}{FE_i} \right) - \left( \frac{\sum_{i=1}^N S_i}{FE_i} \right)}{\left( \sum_{i=1}^N \frac{S_i}{FE_i} \right)^2} \right]$$

$$= 55 * (27.5 - CAFE) - 55 * \frac{\sum_{i=1}^N S_i}{\sum_{i=1}^N \frac{S_i}{FE_i}} + \frac{55}{FE_i} * \frac{\left( \sum_{i=1}^N S_i \right)^2}{\left( \sum_{i=1}^N \frac{S_i}{FE_i} \right)^2}$$

$$= 55 * (27.5 - CAFE) - 55 * CAFE + \frac{55}{FE_i} * (CAFE)^2$$

$$= 55 * (27.5 - CAFE) + 55 * CAFE \left( \frac{CAFE}{FE_i} - 1 \right)$$

**Table 1. Nissan's Preliminary Analysis of Decontenting Costs**

**[Confidential Business Information Redacted]**

**Table 2. Comparison of Hypothetical Decontenting Costs (Duty and Inbound Freight Costs) and CAFE Penalty for the [**  
**]**

**[Confidential Business Information Redacted]**

**Table 3. Comparison of Hypothetical Decontenting Costs (Duty and Both Inbound and Outbound Freight Costs) and CAFE Penalty for the [ ]**

**[Confidential Business Information Redacted]**

**Table 4. Aggregate and Allocated CAFE Penalties for Nissan's Imported Passenger Car Fleet and Individual Model Lines**

**[Confidential Business Information Redacted]**

**Table 5. Likely Sales Losses of Imported Nissan Models and Sales Gains of Competitive Models**

**[Confidential Business Information Redacted]**



**Table 6. Sales Diversions of Vehicles from Nissan's Import Passenger Car Fleet due to CAFE Penalty**

**[Confidential Business Information Redacted]**

**Table 7. Top Twenty North American Assembled Models as Measured by Average Annual Sales Gains**

**[Confidential Business Information Redacted]**

**Table 8. U.S. Employment Gains as a result of Sales Gains (due to the CAFE Penalty paid by Nissan) in U.S. Assembled Vehicles**

**[Confidential Business Information Redacted]**

**Table 9. Decontesting the [ ]**

**[Confidential Business Information Redacted]**

**Table 10. Comparisons of U.S. Jobs Gains and Losses for Decontenting and CAFE Penalty Strategies**

**[Confidential Business Information Redacted]**